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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,497	01/23/2002	Bahram Javidi	UCT-0018	2325
23413	7590	10/03/2003	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			WERNER, BRIAN P	
		ART UNIT		PAPER NUMBER
		2621		
DATE MAILED: 10/03/2003				

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/056,497	JAVIDI, BAHRAM
	Examiner	Art Unit
	Brian P. Werner	2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 18 August 2003.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-82 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_\_ is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) 1-82 are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 January 2002 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Previous Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-65 in Paper No. 8 is acknowledged.

Due to applicant's election of Group I, the application was transferred to an examiner in class 382/154 (3D Image Processing). Upon a thorough reading of the specification and the claims, the examiner has concluded that there are more distinct inventions claimed than previously indicated. Therefore, a new restriction/election is presented herein. Please disregard the previous restriction requirement.

Due to the number of groups and species claimed and the relative complexity of the restriction, the examiner has decided to mail the restriction requirement to ensure that the applicant has ample time to fully consider it. The examiner regrets any inconvenience caused by this new requirement and will gladly answer any questions by telephone at the number below.

### ***Drawings***

2. Figures 1, 2 and 4 may need to be designated by a legend such as --Prior Art-- because it appears, from the description of these figures in the specification, only that which is old is illustrated. See MPEP § 608.02(g). Applicant should review these figures and their corresponding descriptions in the specification and label them accordingly. A proposed drawing correction or corrected drawings are required in reply

to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities: Page 7 of the specification refers variously to figures 4X (e.g., figure 4A, figure 4B, etc.). However, it appears that figures 5X were the intended figures of reference because they depict the subject matter described. Appropriate correction is required.

***Election/Restrictions***

**Restriction**

4. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-65, drawn to the **numeric** reconstruction and display of an elemental image, classified in class 382 (Image Analysis), subclass 154 (3D or Stereo).
- II. Claims 66-73, drawn to the **optical** reconstruction and display of an elemental image classified in class 359 (Optics, Systems and Elements), subclass 619 (by surface composed of lenticular elements).
- III. Claims 74-82, drawn to display devices for displaying elemental images, classified in class 345 (Selective Visual Display Systems), subclass 32 (Optical means interposed in viewing path (e.g., filters, lens, etc.)).

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as being used together as part of any single embodiment, invention I requires the numeric reconstruction of an elemental image using a processor and invention II is completely optical, and invention I has the effect of numerically reconstructing a single view from a plurality of captured views of an object while invention II optically captures, stores and displays multiple views of multiple objects simultaneously.

Inventions I and II with respect to invention III are related as combination (i.e., inventions I and II are combinations) and subcombination (invention III is a subcombination). Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combinations of inventions I and II require an unspecified “display”, while the subcombination of invention III defines very particular and specific display configurations. The subcombination has separate utility such as displaying multiple-view images regardless of how they were created (i.e., numerically as in invention I, or optically as in invention II, or otherwise).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Election of Species

5. This application contains claims directed to the following patentably distinct species of the claimed invention:

Display Device Species:

Species A, drawn to figure 11, and pertaining to a display device utilizing two displays and two lens arrays combined by a beamsplitter, and defined by claims 36-41 and 74-79.

Species B, drawn to figure 12, and pertaining to a display device using a plurality of displays and lens arrays partially surrounding a object, and a plurality of displays and lens arrays partially surrounding the observer, and defined by claims 35 and 80-82.

Elemental Image Reconstruction Species

Species C, drawn to figure 8, and pertaining to the synthesized creation, reconstruction and display of an elemental image, and defined by claims 54-65.

Species D, drawn to figure 10, and pertaining to the combining, reconstruction and display of a synthesized and a real (i.e., optically captured) elemental image, and defined by claims 42-53.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-41 are generic to species C and D, and claims 1-33, 42-73 are generic to species A and B.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Summary of Restriction/Election Requirement

6. Should applicant elect Invention I (defied by claims 1-65), further election is required of one of the display species A (defied by claims 36-41) or B (defied by claim 35), **and** one of the reconstruction species C (defied by claims 54-65) or D (defied by claims 42-53).

Should applicant elect invention II (defined by claims 66-73), no further election is required and claims 66-73 will be examined in their entirety.

Should applicant elect invention III (defined by claims 74-82), further election is required of one of the display species A (defied by claims 74-79) or B (defied by claims 80-82).

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Werner whose telephone number is 703-306-3037. The examiner can normally be reached on M-F, 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H. Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Brian Werner  
Patent Examiner  
Art Unit 2621  
Wednesday, October 01, 2003



**BRIAN WERNER**  
**PRIMARY EXAMINER**